INTERNATIONAL OSOYOOS LAKE BOARD OF CONTROL

Conference Call

March 14, 2017, 9:00 - 11:00 AM PST

BOARD MEMBERS

Cindi Barton Chair, U.S. Section Bruno Tassone Chair, Canadian Section John Arterburn (absent) Board Member, U.S. Section Col. John Buck (absent) Board Member, U.S. Section Kris Kauffman Board Member, U.S. Section Ford Waterstrat Board Member, U.S. Section Glen Davidson Board Member, Canadian Section Sue McKortoff Board Member, Canadian Section **Brian Symonds** Board Member, Canadian Section **Anna Warwick Sears** Board Member, Canadian Section

BOARD STAFF and BOARD MEMBER ASSISTANTS

Andy Gendaszek Secretary, U.S. Section
Gwyn Graham (absent) Secretary, Canadian Section

Sara Marxen Technical Assistant to Col. John Buck

ADDITIONS TO THE CALL

Kyle Blasch

Kevin Shaffer

IKLBC Board Member, U.S. Section

Technical Assistant to Col. John Buck

Wayne Jenkinson IJC, Canadian Section Mark Colosimo IJC, U.S. Section

Bill Werick Climate Adaptation Working Group
Cecilia Wong Environment and Climate Change Canada

APPROVAL OF THE AGENDA

Meeting was led by the Canadian Chair; meeting agenda was accepted with no changes and finalized.

DECISION ITEMS

The Board reviewed and approved the minutes of the December 13, 2016 conference call. The summary will be posted on the Board website.

UPDATE ON HYDROLOGICAL CONDITIONS

Lake levels were compliant with the IJC rule curve between December and March. From late February through to mid-March, Osoyoos lake levels rose steeply due to regulation of outflow at Zosel Dam. This was done in coordination with Okanagan system operations in British

Columbia, where reduced lake inflows were forecast due to fisheries management activities on the Okanagan River near the town of Oliver during the week of March 13. During this period, Okanagan River flow was reduced by about 100 cfs. There has been no public response to this increase in Osoyoos lake levels, which remained within the bounds of the IJC rule curve and which occurred during the normal period of lake level rise, marking the transition from low winter levels to higher summer levels, according to the IJC rule curve. After the fish counting is complete, lake levels are expected to rise in response to freshet inflows, managed (to the extent possible) within the bounds of the IJC rule curve by Zosel dam operations. Comparing to previous years, the timing of freshet was early in 2016 (third week of April), barely discernible in 2015, and relatively normal in 2014 (beginning of May).

Snow water equivalents in the Similkameen and Okanagan drainages are 75% of the historical average and well below levels at this date in 2016. Drought criteria are not expected to be met this year as Okanagan Lake is about 15cm higher than the previous (2016) non-drought year.

Cooler and wetter La Nina conditions are shifting to neutral phase. NOAA's climate outlook calls for warmer drier El Niño conditions in the fall but the confidence of predictions is low at this point.

IJC GUIDANCE ON BOARD DECISION PROCESS

The Board reviewed IJC Guidance on Board Consensus and will report back to Commissioners in early May that this guidance has been discussed. No need to concur in writing. This guidance defines consensus as general agreement that accounts for and reconciles the views of all board members. Where a board member must be absent from a meeting where a decision is to be made, the board co-chair or secretary must be informed prior to the meeting that the absent board member opposes the decision the board is expected to make. Otherwise, the absent board is considered not to have disagreed with the decision and the board may proceed to reach a decision in their absence.

It was recognized that with the size of the Osoyoos Board, this is likely not of concern. If an issue is highly contentious, a subcommittee or breakout group may be created to resolve the issue and present options to the Board for consideration.

IJC SPRING SEMI-ANNUAL MEETING

The IJC's spring semi-annual meeting is scheduled for May 2-4, 2017 in Washington, DC. Western Boards for Osoyoos Lake, Kootenay Lake and Columbia River will meet in the afternoon of May 4 following the International Watersheds Initiative (IWI) Climate Change Guidance Framework Workshop, which is scheduled for the morning of May 4. The U.S. IOLBC Chair and Secretary will attend. The Canadian IOLBC Chair will attend pending funding support.

ANNUAL IOLBC MEETING

The IOLBC's annual meeting is scheduled for October 17-18, 2017 in Canada. The Canadian Secretary will organize logistics for the Board meeting on the afternoon of October 17 followed by the public meeting in the evening. A field trip will be organized for the October 18. Both Canadian and U.S. IOLBC Chairs confirmed plans to attend. One Canadian (Glen Davidson) and one U.S. Board Member (Colonel John Buck) plan to retire prior to this fall meeting. Retiring members were requested to advise the IJC directly of their plans and nominations for replacements as the IJC expects this information from members rather than the Board. In addition, Kevin Shaffer will be replacing Sara Marxen as the technical assistant to Col. Buck for the IOLBC and the incoming command of the USACE Seattle District.

STAFF GAGE AND WEBCAM INSTALLATION AT ZOSEL DAM

The U.S. Secretary explored the possibility of adjusting U.S. Fiscal Year 2017 USGS requests to include installation of additional staff gages and a webcam. There is currently little certainty about available IJC funding for the USGS to accommodate these requests; however there should be greater certainty later in the year.

The Board would like to have additional staff gages installed prior to freshet to capture high discharges from the dam to provide support for the USACE hydraulic model of Zosel Dam. Water levels within the forebay and tailwater must be measured for a range of water elevations and gate openings to provide necessary data for calibrating an analytical model to improve Zosel discharge calculations. The purpose of a webcam is to allow anyone interested the hydraulic conditions and operations at Zosel Dam, to view water levels in the spillway and openings of the gates. Ideally the webcam would be placed in such an orientation that allows for viewing water levels in the spillway, the opening of the gates, and backwater conditions from high stage of the Similkameen River.

UPDATE ON DOCUMENTARY FILM

The documentary is on target for release in late fall. Board members would like to reconvene prior to completion of the film, to have a say over messages in the film, how these fit together, the length of the film and whether the voice over is appropriate. There is a need to develop a distribution plan, including a list of target audiences, for the film producers. There is an opportunity to have this discussion at the next Board conference call around June. Working group members will connect with the film maker then the U.S. Secretary will poll Board members for their ability to meet.

WASHINGTON DEPARTMENT OF ECOLOGY OKANOGAN RIVER CHANNEL SURVEY

Results of the bathymetric survey of the channel between the lake and the dam could be tabled in June. There is potential to extend the technology from the river to the lake if funding is available and if there is interest to update existing Lake Osoyoos bathymetric survey data to support further modeling work.

IJC CLIMATE ADAPTATION WORKING GROUP (CAWG)

The Board received a presentation on an IJC Framework for Climate Change Preparedness by the Climate Adaptation Working Group (CAWG). The Canadian Chair of the IOLBC is a member of the CAWG which formed subsequent to a multi-board climate change workshop hosted through the International Watersheds Initiative in Washington, DC, April 2016. The Framework describes a process for each Board to prepare for climate change, advocates collaboration among IJC Boards to pool information resources, and recommends a Commission wide adaptive management initiative.

The process for each Board to prepare includes 4 steps: 1.) Organization of information about Board objectives, metrics to track success in meeting the objectives and how climate change might affect the Boards' success in meeting the objectives; 2.) Analysis of available information; 3.) identification of Actions that will make a difference to Board objectives; and 4.) adaptive management to Update the process. To guide the first step, CAWG is developing a questionnaire for all Boards to iterate a consensus statement about how climate change may challenge Board responsibilities.

The Framework will be presented at a workshop during the IJC spring semi-annual meeting in Washington, DC on May 4 from 8:30-noon.

Board members appreciated the recommendation to target climate science relevant to Board objectives. It was acknowledged that University of Victoria (UVic) and University of Washington (UW) have contributed significant climate science relative to the Okanagan Valley and that UW in particular is a leader in climate science for the Pacific Northwest. The 2013 Order already takes into consideration increased uncertainty related to climate change. Zosel is operated to meet the Order however there are issues in Canada and U.S. that the Board is unable to control with the dam, e.g. water consumption behaviors.

Pacific salmon are of high value in Canada and U.S., and particularly to Colville Tribes and Okanagan Nation Alliance, and this is a strong motivator for responsible system management. There was question about whether enough is being done to monitor fish health. Climate influences on temperature and fish impacts is an important consideration, as such temperature data are collected at gaging stations. Note impacts to fisheries are considered in water releases even though they are not written explicitly into Orders.

The US Chair suggested a potential action would be to develop a bibliography to inform the first step of the process, in time for the May 4 workshop. The Canadian Chair agreed, indicating there will be much to learn from the workshop.

ADDITIONAL UPDATES AND DISCUSSION

Board members brought up ongoing work within Osoyoos Lake and the Okanagan/Okanogan River basin including: existing hydrologic models within the Okanogan River Basin are currently being reviewed and updates are being considered, new efforts being considered for milfoil control within Osoyoos Lake by the Lake Osoyoos Association and the Osoyoos Lake Water Quality Society, and the formation of a Lake Management District for Osoyoos Lake within the U.S. The Board also discussed potential ways of creating monuments for the high-water mark measured during the 1894 flood and will revisit this topic at the June conference call.

STATUS OF ACTION ITEMS

- 1. In progress: Board Secretaries will investigate funding of adding webcams to Zosel Dam.
- 2. **In progress**: Board Secretaries will research the possibility of adding flows projected by the Applicant to the plot of real-time data with the rule curve hosted on the USGS website.
- 3. **In progress**: Board Secretaries will continue to look into potential availability of USGS funding support for staff gages and webcam at Zosel Dam.
- 4. **In progress**: Board Secretaries will continue to look into availability of additional bathymetric data for Lake Osoyoos.
- 5. In progress: Board Secretaries will update IOLBC website with documentary film trailer.

NEW ACTION ITEMS

- 1. Board Secretaries will prepare a bibliography to initiate the Organization step of the Preparedness Process proposed by CAWG.
- 2. Board Chairs will participate at the May 4 CAWG workshop and present Board perspectives on the IJC Framework for Climate Change Preparedness.
- 3. Board Secretaries will poll for a day in June to reconvene the Documentary Working Group and film maker to review expectations and progress to date.